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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/545,929      | 04/10/2000  | Robert Walter Brown  | DN2000067USA        | 2359             |

7590 12/21/2001

Howard M Cohn  
C/O Robert Brown Dept 823  
The Goodyear Tire & Rubber Company  
1144 East Market Street  
Akron, OH 44309-3531

EXAMINER

VARGOT, MATHIEU D

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 12/21/2001

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Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                                      |                                     |
|------------------------------|--------------------------------------|-------------------------------------|
| <b>Office Action Summary</b> | Application No.<br><b>09/545,929</b> | Applicant(s)<br><b>BROWN et al.</b> |
|                              | Examiner<br><b>H.WAR607</b>          | Group Art Unit<br><b>1732</b>       |

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- Responsive to communication(s) filed on \_\_\_\_\_.
- This action is FINAL.
- Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- Claim(s) 1-18 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- Claim(s) \_\_\_\_\_ is/are allowed.
- Claim(s) 1-18 is/are rejected.
- Claim(s) \_\_\_\_\_ is/are objected to.
- Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.
- The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- The specification is objected to by the Examiner.
- The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - All
  - Some\*
  - None of the CERTIFIED copies of the priority documents have been
  - received.
  - received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- Information Disclosure Statement(s), PTO-1449, Paper No(s). 4  Interview Summary, PTO-413
- Notice of Reference(s) Cited, PTO-892  Notice of Informal Patent Application, PTO-152
- Notice of Draftsperson's Patent Drawing Review, PTO-948  Other \_\_\_\_\_

## Office Action Summary

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1. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, "Kevlar" should be replaced with generic terminology if such is a trademark.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 6-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Japanese 61-69437.

Japanese -437 discloses a method of manufacturing a tire with improved uniformity, the tire having the instant spaced beads (4) on an uncured carcass layer (2), the latter containing a plastic portion (3) which undergoes plastic deformation (ie, elongation) when the tire is heated in the mold and prior to curing/vulcanizing the tire. It is submitted that this disclosure anticipates the recitation "forming the rubber matrix from a matrix material that can be rendered plastic and

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...non-plastic" and that the deformation of Japanese -437 would inherently allow the reinforcement cords to reorient themselves prior to the curing since the aim of the method is to reduce non-uniformity. If the latter is not anticipated, then it is submitted that it is obvious over Japanese -437, in that one of ordinary skill in this art knows that unwanted cord movement is a known cause of non-uniformity. Many post-cure methods of reducing non-uniformity heat the tire portions to relax reinforcing cords. The subsequent curing of the tire would inherently keep the plastic in the matrix in a deformable state until the tire is cooled. Plastics inherently have a deflection temperature and this would presumably be the lower limit at which the plastic would be deformed. At any rate, it is well established in the plastic art that plastics are rendered deformable or distortable under load at temperatures at and above the deflection or heat distortion temperature. Hence, the limitations of 2, 3 and 6 are considered to be inherent in the heating of the tire prior to vulcanizing.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese 61-69437 .

Japanese -437 is applied for reasons of record as set forth in paragraph 2, supra, the reference essentially lacking a clear teaching of the exact deflection temperature. These would have been well known in the art and readily determined dependent on the exact plastic used.

4. Claims 9-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese 61-69437 in view of PCT Publication WO 00/11445 (see translation, page 4, last paragraph).

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Japanese -437 is applied for reasons of record, lacking essentially that the matrix forms at least a portion of the bead portions. PCT -445 teaches that bead portions would be heated and rendered deformably plastic so that tire non-uniformity would be corrected, albeit after the tire has been vulcanized. However, the key is that the reference recognizes the bead portions as portions to reform should the tire be non-uniform. Based on PCT -445, it is submitted that one of ordinary skill in the art would look upon the bead portions as possible points to adjust tire non-uniformity prior to the molding and modify the method of Japanese -437 thus.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the 892 form each disclose that uncured rubber is plastically deformable--see Wulker et al, col. 4, lines 27-28 and lines 50-52; and Rothemeyer et al, col. 1, lines 9-29.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Vargot whose telephone number is (703) 308-2621.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

M. Vargot

December 15, 2001

*M. Vargot*

MATHIEU D. VARGOT  
PRIMARY EXAMINER  
GROUP 1300

*12/15/01*